

Natural Communities of Louisiana



Bottomland Hardwood Forest

Rarity Rank: S4/G4G5

	1	2	3	4	5
State					
Global					
	imperiled		rare	secure	

Synonyms: Mixed Bottomland Hardwoods, Broad Stream Margins, Hardwood Bottoms, Floodplain Forests



Ecological Systems:

CES203.512 Lower Mississippi River Bottomland and Floodplain Forest
CES203.489 East Gulf Coastal Plain Large River Floodplain Forest
CES203.065 Red River Large Floodplain Forest
CES203.488 West Gulf Coastal Plain Large River Floodplain Forest

General Description:

- Forested, alluvial wetlands occupying broad floodplain areas flanking large river systems
- Maintained by a natural hydrologic regime of alternating wet and dry periods that follow seasonal flooding events
- Provide important ecosystem functions including maintenance of water quality, productive habitat for a variety of fish and wildlife species, regulation of flooding, and stream recharge
- Soils are alluvial deposits, heavy clays to silty clays, high in organic matter and nutrients
- Dominant forest species can be aggregated into specific associations based on environmental factors such as physiography, topography, hydric (wet) soils, and hydrologic regimes
- Vegetation associations are typically mixtures of broadleaf deciduous, needleleaf deciduous, and evergreen trees and shrubs



Plant Community Associates

1). Overcup Oak - Water Hickory Bottomland Forest

Quercus lyrata (overcup oak)
Fraxinus pennsylvanica (green ash)
Cornus foemina (swamp dogwood)
Planera aquatica (planertree)
many vine species

Carya aquatica (water hickory)
Celtis laevigata (hackberry)
Forestiera acuminata (swamp privet)
Cephalanthus occidentalis (buttonbush)

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2). Hackberry-American Elm-Green Ash Bottomland Forest

Celtis laevigata (hackberry)
Fraxinus pennsylvanica (green ash)
Quercus texana (nuttall oak)
Quercus nigra (water oak)
Liquidambar styraciflua (sweetgum)
Ulmus alata (winged elm)
Gleditsia aquatica (water locust)
Plantanus occidentalis (American sycamore)
Morus rubra (red mulberry)

Ulmus americana (American elm)
Carya aquatica (water hickory)
Quercus phellos (willow oak)
Quercus lyrata (overcup oak)
Acer negundo (box elder)
Acer rubrum (red maple)
Cornus foemina (swamp dogwood)
Crataegus spp. (hawthorn)
many vines and herbaceous species

3). Sweetgum-Water Oak Bottomland Forest

Liquidambar styraciflua (sweetgum)
Celtis laevigata (hackberry)
Ulmus americana (American elm)
Acer rubrum (red maple)
Ilex decidua (deciduous holly)
Arundinaria gigantea (switchcane)

Quercus nigra (water oak)
Fraxinus pennsylvanica (green ash)
Quercus pagoda (cherrybark oak)
Sabal minor (dwarf palmetto)
Crataegus viridis (green hawthorn)
many vines and herbaceous species

Federally-listed plant & animal species:

Ursus americanus luteolus (Louisiana black bear)

Threatened; G5T2; S2

Range:

Predominant in the Mississippi River Alluvial Plain, but found throughout Louisiana in all river basins. Also important in the East Gulf Coastal Plain in association with major rivers. Bottomland hardwood forest loss is estimated to be 50 to 75 % of the original presettlement acreage. Old-growth examples are very rare.

Threats:

- Clearing for agricultural production was the primary factor leading to fragmentation and decline
- Hydrological alterations
- Construction of roads, utilities and pipelines
- Invasive exotic species

Beneficial Management Practices:

- Prevent conversion of existing natural forests to other land uses
- Strictly follow [Best Management Practices](#) guidelines
- Maintain natural species composition by following appropriate hardwood management techniques
- No harvesting during wet periods to prevent soil damage
- Remove any invasive exotic plant species with use of spot herbicides or mechanical means
- No soil disturbance or other activities that alter natural waterflow, including from adjacent areas

